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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	1	of	5
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Application Number	10/788,700
Filing Date	02/27/2004
First Named Inventor	Sreenivasan
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P107/II-72-54-03

[illegible]

¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	2	of	5
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Application Number	10/788,700
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FOREIGN PATENT DOCUMENTS

[illegible]

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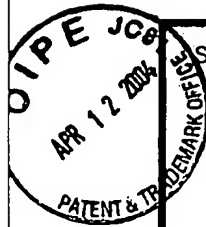
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OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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/M.D./	A18	KRUG et al., "Fine Patterning of Thin Sol-Gel Films," Journal of Non-Crystalline Solids, 1992, pp. 447-450, vol. 147 & 148.	
	A19	Krauss et al., "Fabrication of Nanodevices Using Sub-25nm Imprint Lithography," Appl. Phys. Lett 67(21), 3114-3116, 1995	
	A20	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers," Applied Physics Letters, November 20, 1995, pp. 3114-3116, vol. 67(21).	
	A21	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution," Science, Apr. 5, 1996, pp. 85-87, vol. 272.	
	A22	HAISMA et al., "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, Nov/Dec 1996, pp. 4124-4128, vol. B 14(6).	
	A23	CHOU et al., "Imprint Lithography with Sub-10nm Feature Size and High Throughput," Microelectronic Engineering, 1997, pp. 237-240, vol. 35.	
	A24	FELDMAN et al., "Wafer chuck for manification correction in x-ray lithography," American Vacuum Society, 1998, pp. 3476-3479.	
	A25	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition," Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3917-3921, vol. B 16(6).	
	A26	COLBURN. et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning", Proc. of SPIE, 1999, pp. 379-389, vol. 3676.	
	A27	CHOU et al., "Lithographically-Induced Self Assembly of Periodic Polymer Micropillar Arrays," Journal of Vacuum Science and Technology, Nov/Dec 1999, pp. 3197-3202, vol. B 17(6).	
✓	A28	RUCHHOEFT et al., "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography," Journal of Vacuum Science and Technology, 1999, pp. 2965-2982, vol. 17.	

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/M.D./	A29	CHOI et al., "Design of Orientation Stages for Step and Flash Imprint Lithography," Precision Engineering, Journal of the International Societies for Precision Engineering and Nanotechnology, 2001, pp. 192-199, vol. 25.	
	A30	CHOI et al., "High Precision Orientation Alignment and Gap Control Stages for Imprint Lithography Processes," U.S. Patent Application 09/698,317. Filed with USPTO on October 27, 2000.	
	A31	SREENIVASAN et al., "High-Resolution Overlay Alignment Methods and Systems for Imprint Lithography," U.S. Patent Application Publication 2002/0098426. Published on July 25, 2002.	
	A32	CHOI et al., "Method and System of Automatic Fluid Dispensing for Imprint Lithography Processes," U.S. Patent Application Publication 2002/0094496. Published on July 18, 2002.	
	A33	CHOI et al., "Methods for High-Precision Gap and Orientation Sensing Between a Transparent Template and Substrate for Imprint Lithography," U.S. Patent Application Publication 2003/0093122. Published on July 18, 2002.	
	A34	VOISIN, "Methods of Manufacturing a Lithography Template," U.S. Patent Application 10/136,188, Filed with USPTO on May 1, 2002.	
	A35	SREENIVASAN et al., "Step and Repeat Imprint Lithography Systems," U.S. Patent Application 10/194,414. Filed with USPTO July 11, 2002.	
	A36	SREENIVASAN et al., "Step and Repeat Imprint Lithography Processes," U.S. Patent Application 10/194,991. Filed with USPTO July 11, 2002.	
	A37	OTTO M. et al., "Step and Repeat UV-Nanoimprint Lithography: Material Issues," Nanoimprint and Nanoprint Technology Conference, San Francisco, December 11-13, 2002.	
	A38	JOHNSON, et al., "Advances in Step and Flash Imprint Lithography," SPIE Microlithography Conference, February 23-28, 2003.	
✓	A39	CHOI et al., "A Chucking System and Method for Modulating Shapes of Substrates," U.S. Patent Application 10/293,224. Filed with USPTO on November 13, 2002.	

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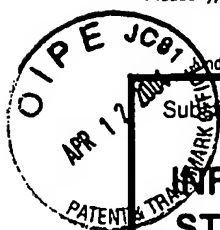
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Sheet 5 of 5

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First Named Inventor	Sreenivasan
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P107/MII-72-54-03

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/M.D./	A40	VOISIN, "Methods of Inspecting A Lithography Template," U.S. Patent Application 10/293,919. Filed with USPTO on November 13, 2002	
/M.D./	A41	CHOI et al., "A Method For Modulating Shapes of Substrates," U.S. Patent Application 10/316,963. Filed with USPTO on December 11, 2002.	
/M.D./	A42	CHOI et al., "A Conforming Template For Patterning Liquids Disposed On Substrates," U.S. Patent Application 10/614,716. Filed with USPTO on July 7, 2003.	
/M.D./	A43	NIMMAKAYALA et al., "Magnification Correction Employing Out-of-Plane Distortion of a Substrate," U.S. Patent Application 10/735,110. Filed with USPTO on December 12, 2003.	
/M.D./	A44	SREENIVASAN et al., "Method for Concurrently Employing Differing Materials to Form a Layer on a Substrate," U.S. Patent Application 10/780,821. Filed with USPTO on January 20, 2004. <u>10/760,821</u>	

Examiner Signature	/Matthew Daniels/	Date Considered	03/21/2007
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet 1 of 5

Complete if Known

Application Number	10/788,700
Filing Date	02/27/2004
First Named Inventor	S. V. Sreenivasan
Group Art Unit	3765
Examiner Name	Rodney M. Lindsey
Attorney Docket Number	P107-49-03

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
/M.D./	B1	6,391,217	B2	Schaffer et al.	5/21/2002	
	B2	2002/0177319	A1	Chou	11/28/2002	
	B3	6,713,238	B1	Chou et al.	3/30/2004	
	B4	2004/0065976	A1	Sreenivasan et al.	4/8/2004	
	B5	6,646,662	B1	Nebashi et al.	11/11/2003	
	B6	6,776,094	B1	Whitesides et al.	8/17/2004	
	B7	6,518,189	B1	Chou	2/11/2003	
	B8	2002/0132482	A1	Chou	9/19/2002	
	B9	2002/0167117	A1	Chou	11/14/2002	
	B10	6,482,742	B1	Chou	11/19/2002	
	B11	2003/0080471	A1	Chou	5/1/2003	
	B12	2004/0036201	A1	Chou et al.	2/26/2004	
	B13	2004/0192041	A1	Jeong et al.	9/30/2004	
	B14	6,828,244	B2	Chou	12/7/2004	
	B15	6,809,356	B2	Chou	10/26/2004	
	B16	2004/0197843	A1	Chou et al.	10/7/2004	
	B17	2004/0156108	A1	Chou et al.	8/12/2004	
	B18	2004/0137734	A1	Chou et al.	7/15/2004	
↓	B19	2004/0131718	A1	Chou et al.	7/8/2004	
	B20	2004/0118809	A1	Chou et al.	6/24/2004	

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Sheet 2 of 5

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	B22	2003/0080472	A1	Chou	5/1/2003	
	B23	2002/0042027	A1	Chou et al.	4/11/2002	
	B24	6,580,172	B2	Mancini et al.	6/17/2003	
	B25	10/714,088		Sreenivasan et al.	11/14/2003	
	B26	10/858,566		Truskett et al.	6/1/2004	
	B27	11/005,742		McMackin et al.	12/7/2004	
	B28	11/006,363		McMackin et al.	12/7/2004	
	B29	4,512,848		Deckman et al.	4/23/1985	
	B30	6,517,995	B1	Jacobson et al.	2/11/2003	
	B31	2004/0110856	A1	Young et al.	6/10/2004	
	B32	5,028,366		Harakal et al.	7/2/1991	
	B33	5,601,641		Stephens	2/11/1997	
	B34	5,849,209		Kindt-Larsen et al.	12/15/1998	
	B35	5,849,222		Jen et al.	12/15/1998	
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/M.D./	B37	WO	2004/013693		Watts et al.	2/12/2004		
	B38	WO	2004/016406		Sreenivasan	2/26/2004		
	B39	WO	00/21689		Chou et al.	4/20/2000		
	B40	JP	02-92603		Kurikawa et al.	4/3/1990		
	B41	JP	02-24848		Kamio	1/26/1990		
	B42	WO	01/47003		Steiner et al.	6/28/2001		
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	B44	WO	2004/114016		Chou et al.	12/29/2004		
	B45	WO	99/05724		Chou et al.	2/4/1999		
	B46	WO	03/010289		Chou et al.	2/6/2003		
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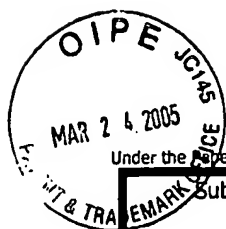
M.D./	B49	Chou, Nanoimprint Lithography and Lithographically Induced Self-Assembly, MRS Bulletin, pp. 512 - 517, 7/1/2001	
	B50	Colburn et al., Step and Flash Imprint Lithography for sub-100 nm Patterning, Proceedings of SPIE Vol. 3997, pp. 453 - 457, 1/1/2000	
	B51	Heidari, Nanoimprint Lithography at the 6 in. Wafer Scale, J. Vac. Sci. Technol. B 18(6), pp. 3557 - 3560, 11/1/2000	
	B52	Translation of Japanese Patent 02-92603, 4/3/1990	
	B53	Translation of Japanese Patent 02-24848, 1/26/1990	
	B54	Chou et al., Ultrafast and Direct Imprint of Nanostructures in Silicon, Nature, Col. 417, (June 2002), pp. 835-837, 6/1/2002	
	B55	Chou et al., Nanoimprint Lithography, Journal of Vacuum Science Technolgy B 14(16), pp. 4129-4133, 11/1/1996	
	B56	Colburn et al., Development and Advantages of Step-and-Flash Lithography, Solid State Technology, 7/1/2001	
↓	B57	Colburn et al., Characterization and Modeling of Volumetric and Mechanical Properties for Step and Flash Imprint Lithography Photopolymers, Journal of Vacuum Science Technology. Vol b. 19(6), 11/1/2001	

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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/788,700
				Filing Date	02/27/2004
				First Named Inventor	S. V. Sreenivasan
				Group Art Unit	3765
				Examiner Name	Rodney M. Lindsey
				Attorney Docket Number	P107-49-03
Sheet	5	of	5		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

/M.D./	B58	Bailey et al., Step and Flash Imprint Lithography: Defect Analysis, Journal of Vacuum Science, B 19(6), pp. 2806-2810, 11/1/2001	
/M.D./	B59	Bailey et al., Step and Flash Imprint Lithography: Template Surface Treatment and Defect Analysis, Journal of Vacuum Science, B 18(6), pp. 3572-3577, 11/1/2000	
/M.D./	B60	Schneider et al., Stripes of Partially Fluorinated Alkyl Chains: Dipolar Langmuir Monolayers	

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				FILING DATE	02/27/2004
				FIRST NAMED INVENTOR	Sreenivasan, S.V.
				Group Art Unit	3765
				Examiner Name	Lindsey, Rodney M.
Sheet 1 of 2				Attorney Docket Number	P107-49-03

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (If known)			
/M.D./	C1	5,723,176		Keyworth et al.	3/3/1998	
	C2	6,355,198	B1	Kim et al.	3/12/2002	
	C3	2004/0021866	A1	Watts et al.	2/6/2004	
	C4	2004/0022888	A1	Sreenivasan et al.	2/5/2004	
	C5	2004/0124566	A1	Sreenivasan et al.	7/1/2004	
	C6	2004/0250945	A1	Zheng et al.	12/16/2004	
	C7	2005/0037143	A1	Chou et al.	2/17/2005	
	C8	2005/0106321	A1	McMackin et al.	5/19/2005	
	C9	6,900,881		Sreenivasan et al.	5/31/2005	
	C10	6,908,861	B2	Sreenivasan et al.	6/21/2005	
	C11	6,916,584	B2	Sreenivasan et al.	7/12/2005	
	C12	2003/0062334	A1	Lee et al.	4/3/2003	
✓	C13	2005/0160011	A1	Sreenivasan et al.	7/21/2005	
	C14	6,932,934	B2	Choi et al.	8/23/2005	

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				Group Art Unit	3765
				Examiner Name	Lindsey, Rodney M.
Sheet 2 of 2				Attorney Docket Number	P107-49-03

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/M.D./	C15	APPLICATION NO. 11/101,139, naming Inventors Shackleton et al., entitled System for Controlling a Volume of Material on a Mold, filed 4/7/2005	
	C16	APPLICATION NO. 11/101,140, naming Inventors McMackin, entitled Method for Fast Filling of Templates for Imprint Lithography Using on Template Dispense, filed 4/7/2005	
	C17	NERAC.COM RETRO SEARCH, Fluid Dispensing, 5/4/2005	
	C18	APPLICATION NO. 11/126,846, naming Inventors Choi et al., entitled Formation of Discontinuous Films During an Imprint Lithography Process, filed 5/11/2005	
	C19	APPLICATION NO. 11/127,041, naming Inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Processes, filed 5/11/2005	
	C20	APPLICATION NO. 11/127,060, naming Inventors Sreenivasan et al., entitled Step and Repeat Imprint Lithography Systems, filed 5/11/2005	
↓	C21	APPLICATION NO. 11/143,092, naming Inventors Lad et al., entitled Fluid Dispensing and Drop- on-Demand Dispensing for Nano-Scale Manufacturing, filed 6/2/2005	

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Sheet	2	of	3
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Complete if Known

APPLICATION NUMBER	10/788,700
FILING DATE	02/27/2004
FIRST NAMED INVENTOR	Sreenivasan
Group Art Unit	3765
Examiner Name	Lindsey, Rodney M.
Attorney Docket Number	P107-49-03

FOREIGN PATENT DOCUMENTS

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/M.D./	D12	FEYNMAN, There's Plenty of Room at the Bottom, 12/1/1959	
/M.D./	D13	XIA ET AL., Soft Lithography, Angew. Chem. Int. Ed., pp. 550 - 575 1/1/1998	
/M.D./	D14	NGUYEN, Asymmetric Fluid-Structure Dynamics in Nanoscale Imprint Lithography, The University of Texas at Austin, pp. 1 - 111 8/1/2001	
/M.D./	D15	Abstract of Japanese Patent 02-92603, 8/12/2004	
/M.D./	D16	Abstract of Japanese Patent 02-24848, 1/26/1990	

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